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EXAMINER	
PHAN, TRI H	

ART UNIT	PAPER NUMBER
2616	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/795,791	DURHAM ET AL.	
	Examiner	Art Unit	
	Tri H. Phan	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *08 March 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-15* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-15* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Communication(s)

1. This office action is in response to the continuation of Application filed on March 8th, 2004. Claims 1-15 are now pending in the application.

Double Patenting

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned

with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. Claims 1-6 of the current application are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-6 of U.S. Patent No. 6,704,319 (hereinafter refer as '4319') in view of U.S. Patent No. 5,428,636 (hereinafter refer as 'Meier'). Although the conflicting claims are not identical, they are not patentably distinct from each other because:

Claims 1-6 of patent '4319' teach essentially the same computer readable medium having executable instructions for performing method steps as claims 1-6 of the current application. Even though claims 1-6 of the current application are broadened by omitting certain limitations of patent '4319' (for example, "*wherein each of the nodes includes a data structure identifying each node's level within the logical tree*" in detecting step of claims 1 and 4; wherein data structure for identifying the node's level within the logical tree at each node is obvious in order to communicate with upper level node, e.g. parent node, or lower level node, e.g. child node, within the spanning tree); it has been held that the omission of an element and its function is an obvious expedient if the remaining elements perform the same function as before. *In re Karlson*, 136 USPQ 184(CCPA). Also note *Ex parte Rainu*, 168 USPQ 375(Bd. App. 1969); omission of a reference element whose function is not needed would be an obvious variation.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 7-13 are rejected under 35 U.S.C. 102(e) as being anticipated by **Ahearn et al.** (U.S.5,926,463; hereinafter refer as '**Ahearn**').

- In regard to claim 7, **Ahearn** discloses *a computerized system* (for example see figs. 3-4, 8; col. 5, lines 24-57; wherein network system with individual nodes or workstations is built using client/server technology, e.g. "*computerized system*", as disclosed in col. 4, lines 36-44) *comprises*

a logical tree having a plurality of nodes ('spanning tree' in fig. 4), *each one of the nodes corresponding to a component in a network and each non-root node having a parent node* (for example see figs. 4, 8; col. 7, lines 18-25; wherein individual nodes or workstations 1 are connected through switches 5, routers 9, to servers 13, e.g. "*parent node*", in building 'parent/children' relationship in spanning tree topology by using Mrtree utility as disclosed in col. 15, lines 23-54); *and*

a program module for tracing a path between two nodes on the logical tree wherein the path traced on the logical tree corresponds to one or more links in the network forming a route between the two hosts ('Mtrace application'; for example see col. 13, lines 20-58; wherein Mtrace program, e.g. "*program module*", creates and traces path between source and end stations, e.g. "*links forming a route between two nodes*" or "*links forming a route between two hosts*", on the spanning tree).

- Regarding claim 8, **Ahearn** further discloses, *wherein the program module manages bandwidth for the one or more links in the network forming the route between the two hosts* (for example see fig. 4; col. 3, lines 7-16; wherein bandwidth utilization is determined and calculated for viewing or managing as disclosed in col. 1, lines 7-16).

- In regard to claim 9, **Ahearn** further discloses, *wherein the network comprises a local area network* ('LAN'; for example see col. 2, lines 20-23).

- Regarding claim 10, **Ahearn** further discloses, *wherein the local area network comprises a switched network* ('switched network'; for example see col. 13, lines 41-42).

- In regard to claim 11, **Ahearn** further discloses, *wherein the network comprises a wide area network* ('WAN'; for example see col. 5, lines 24-30).

- Regarding claim 12, **Ahearn** discloses, *a server computer* (for example see col. 4, lines 36-44) *comprises*

a memory;

a processor; and

computer executable instructions executed by the processor from the memory ('program application'; for example see col. 4, lines 36-44; wherein "*memory*" for storing program applications and "*processor*" for executing program applications are inherent in the server to perform functions as disclosed in col. 3, lines 7-16; or program applications, e.g. "*computer executable instructions*", as disclosed in col. 13, lines 20-58) *for representing a network as a logical tree having a plurality of nodes* ('spanning tree' in fig. 4)*; each one of the nodes corresponding to a component in a network and each non-root node having a parent node* (for example see figs. 4, 8; col. 7, lines 18-25; wherein, components such as individual nodes or workstations 1 are connected through switches 5, routers 9, to servers 13 in building 'parent/children' relationship in spanning tree topology , e.g. "*non-root node/parent node*", identify by using Mrtree utility as disclosed in col. 15, lines 23-54) *and for tracing a path between two nodes on the logical tree wherein the path traced on the logical tree corresponds to one or more links in the network forming a route between two components* ('Mtrace application'; for example see col. 13, lines 20-58; wherein Mtrace creates and traces path between source and end stations, e.g. "*links forming a route between two components*", on the spanning tree).

- Regarding claim 13, **Ahearn** also discloses *the server computer further comprise computer executable instructions* ('program applications') *for managing bandwidth for the links*

in the network forming the route between two components (for example see fig. 4; col. 3, lines 7-16; wherein bandwidth utilization is determined and calculated for viewing or managing as disclosed in col. 1, lines 7-16).

6. Claim 14 is rejected under 35 U.S.C. 102(e) as being anticipated by **Aras et al.** (U.S.5,884,037; hereinafter refer as '**Aras**').

- In regard to claim 14, **Aras** discloses *a method of managing bandwidth on a network* (for example see col. 1, lines 7-9), *which comprises*

receiving a request for bandwidth from a client computer on the network (for example see figs. 14-17; col. 9, lines 11-18; wherein connection request with required bandwidth from client is received by the connection agent);

identifying network links affected by the request for bandwidth (for example see fig. 14; col. 9, lines 22-41; col. 11, lines 19-49; wherein each connection on the link or network segment is measured and calculated in determining the available bandwidth for connection with requested bandwidth); *and*

allocating an amount of bandwidth for each link on the network (for example see col. 9, lines 28-34; col. 11, lines 19-22; wherein bandwidth for each link or segment is measuring and allocating on the resource utilization list).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Ahearn et al.** (U.S.5,926,463) in view of **Aras et al.** (U.S.5,884,037; hereinafter refer as '**Aras**').

- In regard to claim 15, **Ahearn** discloses *a system comprise*

a network bandwidth manager ('software application in the server' as disclosed in col. 4, lines 36-44), *the network bandwidth manager representing the network as a logical tree* ('spanning tree'; for example see fig. 4; col. 7, lines 18-25) *and tracing a route between two nodes in the logical tree* ('Mtrace application'; for example see col. 13, lines 20-58; wherein Mtrace program creates and traces path between source and end stations, e.g. "*tracing a route between two nodes*" or "*links forming a route between two hosts*", on the spanning tree). *and allocating bandwidth for each link in the route; and*

a host computer interconnected with the network bandwidth manager and capable of communicating over the network (for example see figs. 4, 8; col. 7, lines 18-25; wherein individual nodes or workstations 1, e.g. "*host computer*", are connected through switches 5, routers 9, to servers 13 in spanning tree topology), *the host computer requesting bandwidth from the network bandwidth manager* (for example see col. 6, line 62 through col. 7, line 10; wherein

the requested program from workstation, e.g. "*host computer*", with large amounts of bandwidth in the network is required for multimedia program).

Ahearn does discloses method for determining status, configuration and connectivity of nodes in the network by calculating parameters such as bandwidth utilization, congestion, QoS, etc. as disclosed in col. 3, lines 7-16; but fails to explicitly disclose method for "*allocating an amount of bandwidth for each link on the network*". However, such limitation lacks thereof from **Ahearn** reference is well known and disclosed by **Aras**.

In an analogous art, **Aras** discloses method and system for allocation of network resources to client computer requesting access to computer systems or servers; wherein bandwidth for each link or segment is measuring and allocating on the resource utilization list as disclosed in col. 9, lines 28-34; col. 11, lines 19-22, e.g. "*allocating an amount of bandwidth for each link on the network*".

Thus, it would have been obvious to those skilled in the art at the time of the invention was made to incorporate the method for allocating amount bandwidth for each link as taught by **Aras**'s bandwidth management in place of **Ahearn**'s server application to arrive the claimed invention, with a motivation to improve bandwidth management on allocating network resources based on client request bandwidth connection.

Allowable Subject Matter

9. Claims 1-6 would be allowable if rewritten or amended to overcome the rejection(s) under Double Patenting rejection, set forth in this Office action.

10. The following is an Examiner's statement of reasons for allowance:

The prior art of record, considered individually or in combination, fails to fairly show or suggest the claimed invention of base claims 1 (method) and 4 (computer readable medium), and further limit with novel and unobvious limitations as following:

" detecting if one of the two nodes exists at a lower level of the logical tree; tracing a first path from the first node at the lower level to the parent node at a higher level until the parent node is at a same level of the logical tree as the second node; and continuing to trace the first path up the logical tree from the parent node and tracing a second path up the logical tree from the second node until the first path and the second path meet at a same node." functionally interconnected with other limitations in a manner as recited in claims 2-3 and 5-6.

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Ahmadi et al. (U.S.5,233,604) and **Narvaez-Guarnieri et al.** (U.S.6,347,078) are all cited to show devices and methods for improving the routing technique with desired QoS in telecommunication architectures, which are considered pertinent to the claimed invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tri H. Phan, whose telephone number is (571) 272-3074. The examiner can normally be reached on M-F (8:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi H. Pham can be reached on (571) 272-3179.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

(571) 273-8300

Hand-delivered responses should be brought to Randolph Building, 401 Dulany Street, Alexandria, VA 22314.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office, whose telephone number is (571) 272-2600.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Tri H. Phan/
February 3, 2008